

CLAIMS

1. A method of manufacturing flexible magnetic tape having a permanently structured magnetic characteristic which varies from place to place in two different directions in the plane of the tape, the method including:-
 - a) providing a flexible elongate substrate with a layer of material having a permanently structured magnetic characteristic which varies in first direction making an oblique angle relative to the longest dimension of the substrate,
 - b) coating the said substrate with a slurry comprising anisotropic magnetic particles;
 - c) moving the substrate and slurry coating relative to a first magnetic field having a field strength which varies with time in a second direction making an oblique angle with the first direction, thereby orienting the said particles on selected spaced areas of the substrate in a second direction making an oblique angle with the first direction;
 - d) solidifying the slurry to fix the said particles in place.
2. A method as claimed in claim 1 in which the layer of material having a permanently structured magnetic characteristic is replaced by a layer of a metal having a modulated thickness which varies in first direction making an oblique angle relative to the longest dimension of the substrate, the thickness modulations being detectable by an active magnetic read head.
3. A method as claimed in claim 2 in which the layer of a metal is deposited upon the solidified slurry layer, so that the thickness of the solidified slurry layer is substantially constant.
4. A method as claimed in claim 1 in which the layer of material having a permanently structured magnetic characteristic which varies in first

10

- direction making an oblique angle relative to the longest dimension of the substrate comprises layer including magnetic particles, the layer having a modulated thickness.
5. A method as claimed in claim 4 in which the layer of material having a permanently structured magnetic characteristic and having a modulated thickness is deposited upon the solidified slurry layer, so that the thickness of the solidified slurry layer is substantially constant.
6. A method of manufacturing flexible magnetic tape having a permanently structured magnetic characteristic which varies from place to place in two different directions in the plane of the tape, the method including:-
a) coating a flexible substrate with a slurry comprising anisotropic magnetic particles;
b) moving the substrate and slurry coating relative to a first magnetic field, thereby orienting the said particles in a first direction;
c) subsequently moving the substrate and slurry coating relative to a second magnetic field having a field strength which varies with time in a second direction making an oblique angle with the first direction, thereby orienting the said particles on selected spaced areas of the substrate in a second direction making an oblique angle with the first direction;
d) solidifying the slurry to fix the said particles in place;
characterised in that the first magnetic field has a magnetic field strength which varies with time in said first direction, such that following step c) the said magnetic particles are selectively oriented in spaced areas in both said first and said further directions.
7. A method as claimed in claim 1 or claim 2 or claim 6, in which the substrate is subsequently slit along either said first or said second direction to provide a plurality of lengths of tape having respective permanently

11

structured magnetic patterns which vary in a single direction in the plane of the tape.

8. A magnetic record carrier comprising a length of tape made according to the method of any preceding claim.
9. A document or other article having a magnetic record carrier according to claim 8 attached to it or embedded in it.